1. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{9x+3} - \sqrt{-7x+3} = 0$$

A. $x \in [-0.02, 0.02]$

B. $x \in [-0.41, -0.35]$

C. $x_1 \in [-0.35, -0.28]$ and $x_2 \in [0.09, 1.35]$

D. All solutions lead to invalid or complex values in the equation.

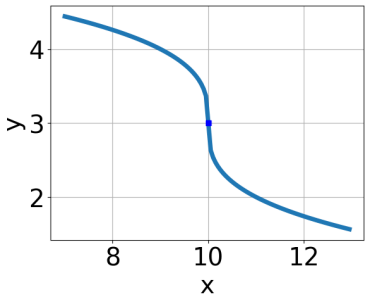
E. $x_1 \in [-0.35, -0.28]$ and $x_2 \in [-0.71, 0.35]$

---

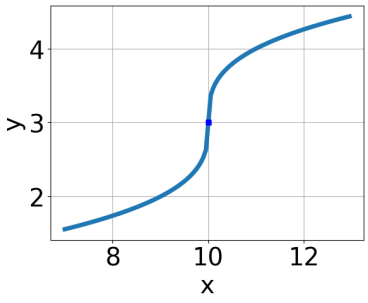
2. Choose the graph of the equation below.

$$f(x) = -\sqrt[3]{x+10} + 3$$

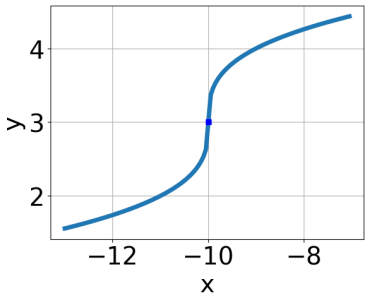
A.



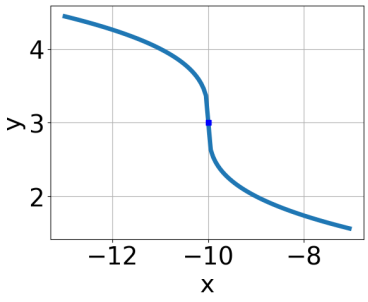
C.



B.



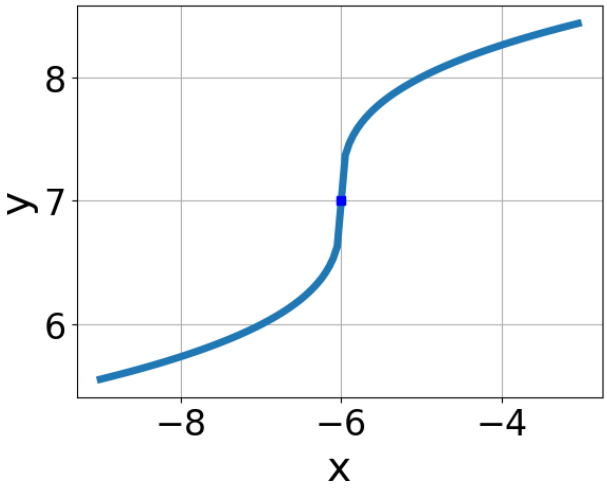
D.



E. None of the above.

---

3. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt[3]{x+6} + 7$

B. $f(x) = -\sqrt[3]{x-6} + 7$

C. $f(x) = \sqrt[3]{x+6} + 7$

D. $f(x) = \sqrt[3]{x-6} + 7$

E. None of the above

---

4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-48x^2 + 15} - \sqrt{-22x} = 0$$

A. $x_1 \in [0.37, 0.57]$ and $x_2 \in [-0.17, 5.83]$

B. $x_1 \in [-0.55, -0.32]$ and $x_2 \in [-0.17, 5.83]$

C. All solutions lead to invalid or complex values in the equation.

D. $x \in [-0.55, -0.32]$

E. $x \in [0.38, 1.04]$

---

5. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{4x - 7} - \sqrt{9x - 2} = 0$$

A. $x_1 \in [0.18, 0.79]$ and $x_2 \in [0.75, 4.75]$

B. $x \in [-1.07, -0.45]$

C. $x_1 \in [-1.07, -0.45]$ and $x_2 \in [0.75, 4.75]$

D. All solutions lead to invalid or complex values in the equation.

E. $x \in [-2.19, -1.77]$

---

6. What is the domain of the function below?

$$f(x) = \sqrt[3]{4x + 3}$$

A. The domain is $(-\infty, a]$, where $a \in [-1.5, -1.33]$

B. $(-\infty, \infty)$

C. The domain is $(-\infty, a]$, where $a \in [-0.77, 0.93]$

D. The domain is $[a, \infty)$, where $a \in [-1.26, -0.5]$

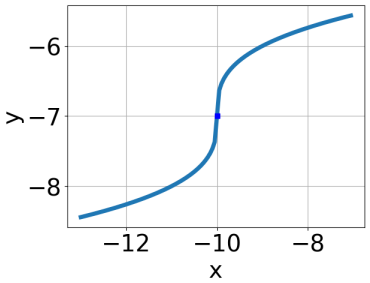
E. The domain is $[a, \infty)$, where $a \in [-1.4, -1.33]$

---

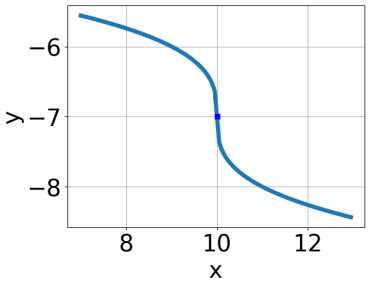
7. Choose the graph of the equation below.

$$f(x) = \sqrt[3]{x + 10} - 7$$

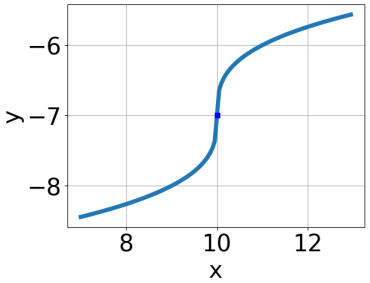
A.



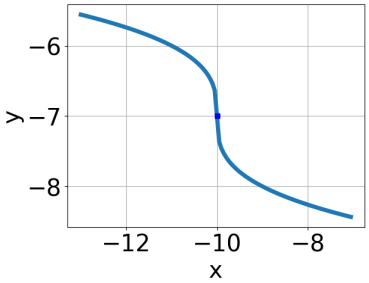
C.



B.



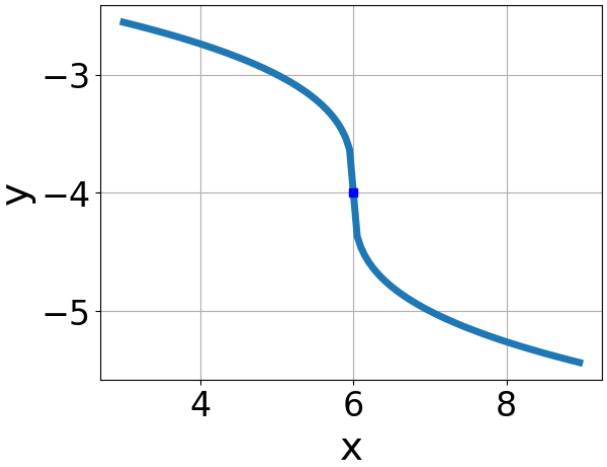
D.



E. None of the above.

---

8. Choose the equation of the function graphed below.



A. $f(x) = -\sqrt{x-6} - 4$

B. $f(x) = -\sqrt{x+6} - 4$

C. $f(x) = \sqrt{x+6} - 4$

D. $f(x) = \sqrt{x-6} - 4$

E. None of the above

---

9. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{36x^2 + 20} - \sqrt{-61x} = 0$$

A. $x \in [-1.86, -0.84]$

B. All solutions lead to invalid or complex values in the equation.

C. $x \in [-0.62, -0.28]$

D. $x_1 \in [-1.86, -0.84]$ and $x_2 \in [-1.9, -0.4]$

E. $x_1 \in [-0.31, 0.87]$ and $x_2 \in [1.2, 2.2]$

---

10. What is the domain of the function below?

$$f(x) = \sqrt[6]{5x+3}$$

A. $(-\infty, a]$, where $a \in [-1.15, 1.69]$

B. $(-\infty, \infty)$

C. $[a, \infty)$, where $a \in [-1.6, 5.4]$

D. $(-\infty, a]$, where $a \in [-2.34, -1.3]$

E. $[a, \infty)$, where $a \in [-4.67, -0.67]$